IEEE *Xplore* ℮
RELEASE 2.0

Welcome United States Patent and Trademark Office

□ **AbstractPlus**

◄ <u>View Search Results</u>

BROWSE   SEARCH   IEEE XPLORE GUIDE

☑ e-n

Access this document

📄 Full Text: <u>PDF</u> (96 KB)

Download this citation

Choose | Citation ▼ |

Download | EndNote,ProCite,RefMan ▼ |

» <u>Learn More</u>

Rights & Permissions

Request Permissions
R I G H T S L I N K❮❯

» <u>Learn More</u>

Software reliability modeling by concatenating failure rate

<u>Singpurwalla, N.D.</u>
George Washington Univ., Washington, DC, USA;

Abstract

The concatenation of failure rate functions results in point process models that need not p· increments, or lack memory features of Poisson processes. Processes having a memory ¿ compared to those that do not, and as a consequence provide a credible framework for trɛ predicting failure times. The purpose of the paper is to propose and describe a model for ɛ based on this paradigm. The proposed model is adaptive, can explain empirically observe outperforms the predictive ability of its competitors. The model and its inferential mechaniɛ software to implement it with ease, is available

Index Terms

Inspec

Controlled Indexing
<u>Poisson distribution</u>   <u>software quality</u>   <u>software reliability</u>

Non-controlled Indexing
<u>Poisson processes</u>   <u>empirically observed phenomena</u>   <u>failure rate concatenation</u>
<u>functions</u>   <u>failure times</u>   <u>inferential mechanism</u>   <u>point process models</u>   <u>predictive</u>
<u>software reliability modeling</u>

Author Keywords
Not Available

References

No references available on IEEE Xplore.

Citing Documents

1. Better reliability assessment and prediction through data clustering, Tian, J.
    Software Engineering, IEEE Transactions on
    On page(s): 997- 1007, Volume: 28, Issue: 10, Oct 2002
    <u>Abstract</u> | Full Text: <u>PDF</u> (400)

2   Evaluating Web software reliability based on workload and failure data extracted from
    Rudraraju, S.; Zhao Li
    Software Engineering, IEEE Transactions on
    On page(s): 754- 769, Volume: 30, Issue: 11, Nov. 2004
    <u>Abstract</u> | Full Text: <u>PDF</u> (1264)

Google™

| modeling and failure rate | Search | Advanced Search Preferences |

The **"AND"** operator is unnecessary — we include all search terms by default. [details]

Web

Results **1 - 10** of about **1,530,000** for <u>modeling</u> and <u>failure rate</u>. **(0.25** seconds)

<u>Modeling</u> Scams - Model Scouts
www.**modeling**scams.org/modelscouts.html - <u>Similar pages</u>

[PDF] <u>Software Reliaibility **Modeling** by Concatenating **Failure Rates**</u>
File Format: PDF/Adobe Acrobat
Software Reliaibility **Modeling**. by Concatenating **Failure Rates**. Nozer D. Singpurwalla
... reliability are motivated by a concatenation of **failure rate** ...
doi.ieeecomputersociety.org/10.1109/ISSRE.1998.730860 - <u>Similar pages</u>

<u>How to get your money back from Kids.com LLC (www.JustOurKids.com ...</u>
I paid Kids.com after misrepresentations by your child **modeling** agency. ...
If they at NTA had a 99% **failure rate**, why should I believe they at Kids.com ...
www.easybackgroundcheck.com/justourkidsmoneyback.html - 11k - <u>Cached</u> - <u>Similar pages</u>

<u>Easy Background Check - Highlite **Modeling** Agency aka Models Net ...</u>
Models Net International Inc. (Highlite **Modeling** Agency) Flyer 2 ... Given the
fact they do have an EXTREME **FAILURE RATE**, why is this company in business? ...
www.easybackgroundcheck.com/highlite.html - 14k - <u>Cached</u> - <u>Similar pages</u>

[PDF] <u>RAMPOD Data Can Support **Modeling** of Beddown, Pod **Failure Rates** ...</u>
File Format: PDF/Adobe Acrobat - <u>View as HTML</u>
RAMPOD Data Can Support **Modeling** of Beddown,. Pod **Failure Rates**, and Repair-Shop
Processes ... requirements, RAND will develop more robust **failure-rate** ...
www.rand.org/publications/DB/DB318/db318.ch4.pdf - <u>Similar pages</u>

<u>Markov Chain Software, Markov Process & Model - Relex Markov ...</u>
Markov models are the only accurate method for **modeling** complex ... Thus, a Markov
model is used only when a constant **failure rate** and repair **rate** ...
www.relexsoftware.com/resources/art/art_markov1.asp - 16k - <u>Cached</u> - <u>Similar pages</u>

<u>Availability **Modeling** Programs</u>
Allows **modeling** of dependent **failure rates** and repair times, sensitivity analysis
of component **failure rates** and repair times. ...
www.enre.umd.edu/amp.htm - 14k - <u>Cached</u> - <u>Similar pages</u>

<u>**Modeling** of failure mode in knee ligaments depending on the strain ...</u>
Modeling of **failure** mode in knee ligaments depending on the strain **rate**. Mija Lee
1 and William Hyman2. 1Mija Lee Biomedical Engineering Program, ...
www.pubmedcentral.nih.gov/ articlerender.fcgi?artid=65677 - <u>Similar pages</u>

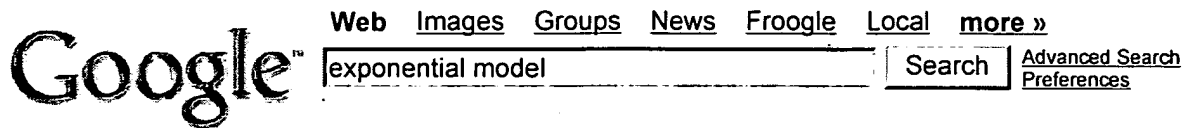### <u>Understanding Your Product Through Reliability **Modeling**</u>
Providing an overview of system reliability **modeling** for single thread and ...
Failure rates for the individual "boxes" of the model can be derived from ...
quanterion.com/ReliabilityQues/V3N2.html - 30k - Jul 11, 2005 - <u>Cached</u> - <u>Similar pages</u>

<u>Reliability Models for **Failure** Mechanisms</u>
Failure Mechanism Reliability **Modeling**, or reliability **modeling**, ... Since temperature
increases the reaction **rate**, then R1 is faster than R2, or R1 > R2 . ...

Google™

exponential model | Search | Advanced Search
Preferences

Web

Results **1 - 10** of about **3,190,000** for **exponential model**. (0.26 seconds)

Exponential Models
The population begins to grow **exponentially**, but then levels off because of such
... this term, linear **models**, quadratic **models**, and **exponential models**. ...
edtech.nfcc.edu/king/CollegeAlgebra/ **exponential_models**.htm - 12k - Cached - Similar pages

Exponential Models and Logarithms
Almost all of the **exponential models** we have considered to this point ...
Practice estimating **exponential** and power function **models** by completing the ...
campus.northpark.edu/math/PreCalculus/ Transcendental/Logarithmic/Models/ - 40k - Cached - Similar pages

Constructing Exponential Models
Section 3.3: Constructing **Exponential Models**. In the previous section, ...
Practice determining appropriate **exponential models** by completing the following ...
campus.northpark.edu/math/PreCalculus/ Transcendental/Exponential/Models/ - 42k -
Cached - Similar pages

Maximum Entropy
MaxEnt and **exponential models**. ... The tutorial discusses the process of growing
an **exponential model** by automatic feature selection ("inductive learning," ...
www.cs.cmu.edu/~aberger/maxent.html - 11k - Cached - Similar pages

Course 1 Unit 6 - Exponential Models
Exponential Models is the sixth unit in Course 1 of the Contemporary ... In Lesson
1 of this unit, students investigate and **model exponential** growth using ...
www.wmich.edu/cpmp/unitsamples/c1u6/c1u6intro.html - 24k - Cached - Similar pages

Exponential Model
Exponential model is associated with the name of Thomas Robert Malthus ...
However, **exponential model** is robust; it gives reasonable precision even if these ...
www.gypsymoth.ento.vt.edu/~sharov/PopEcol/lec5/exp.html - 4k - Cached - Similar pages

Exponential and Logarithmic Models
Exponential Growth and Decay. Two common types of mathematical **models** are ...
This data is approximated well by the **exponential** growth **model** P = 100 e0.08t, ...
www.uncwil.edu/courses/mat111hb/ EandL/elmodels/elmodels.html - 16k - Cached - Similar pages

8.1.6.1. Exponential
All the key formulas for using the **exponential model**, Formulas and Plots.
The **exponential model**, with only one unknown parameter, is the simplest of all ...
www.itl.nist.gov/div898/ handbook/apr/section1/apr161.htm - 9k - Cached - Similar pages

Exponential Model NTC Thermistors - BetaTHERM Sensors Temperature ...
Betatherm Sensors is a leading provider of high precision NTC thermistors and
probe assemblies to a wide number of sectors internationally including ...
www.betatherm.com/betavalueb.htm - 46k - Cached - Similar pages

Malthusian Growth Model, 7/95 Envision It!
In 1798 the Englishman Thomas R. Malthus posited a mathematical **model** of ...